CLAIMS

What is claimed is:

1. A method of feedback control of a laser, said method comprising:

outputting a laser beam from said laser to an optical bundle;

measuring an intensity of said laser beam between said laser and said optical bundle and outputting a raw feedback signal in response thereto;

multiplying said raw feedback signal by a laser calibration factor and an optical bundle calibration factor and outputting an adjusted feedback signal; and

receiving said adjusted feedback signal and controlling said laser in response to said adjusted feedback signal.

2. The method according to Claim 1, further comprising:

determining the value of said laser calibration factor and said optical bundle calibration factor through testing of a sample of laser and optical bundle combinations.

3. The method according to Claim 2 wherein said determining the value of said laser calibration factor and said optical bundle calibration factor comprises:

measuring a response slope of said sample of laser and optical bundle combinations; and

calculating said laser calibration factor and said optical bundle calibration factor in response to said response slope of said sample of laser and optical bundle combinations.

4. A method of feedback control of a first laser, said first laser being operably coupled to an optical bundle, said method comprising:

outputting a laser beam from said first laser to said optical bundle;

measuring an intensity of said laser beam between said first laser and said optical bundle and outputting a raw feedback signal in response thereto;

determining a value of a laser calibration factor and a optical bundle calibration factor through testing of at least a second laser and at least a second optical bundle;

multiplying said raw feedback signal by said laser calibration factor and said optical bundle calibration factor and outputting an adjusted feedback signal; and

receiving said adjusted feedback signal and controlling said first laser in response to said adjusted feedback signal.

5. The method according to Claim 4 wherein said determining said value of said laser calibration factor and said optical bundle calibration factor comprises:

measuring a response slope of said second laser and said second optical bundle; and

calculating said laser calibration factor and said optical bundle calibration factor in response to said response slope of said second laser and said second optical bundle.

6. A feedback control system for use with a plurality of laser sources and a plurality of optical bundles, one of said plurality of laser sources being operably coupled to one of said plurality of optical bundles for delivering a laser light output, said feedback control system comprising:

an optical sensor connectable between said one of said plurality of laser sources and said one of said plurality of optical bundles, said optical sensor operable to output a raw feedback signal in response to a measure intensity of laser light output from said one of said plurality of laser sources;

a processing unit operably coupled with said optical sensor for receiving said raw feedback signal, said processing unit operable to multiply said raw feedback signal by a laser calibration factor and a bundle calibration factor to produce an adjusted feedback signal; and

a controller operably coupled with said processing unit for receiving said adjusted feedback signal, said controller being connectable with said one of said plurality of laser sources so as to control the output of said one of said plurality of laser sources in response to said adjusted feedback signal.

7. The feedback control system according to Claim 6 wherein said optical sensor is a photodiode.

8. The feedback control system according to Claim 6 wherein said laser calibration factor and said bundle calibration factor are determined through a statistical sampling.